



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

D3391-023
Job Sheet 168761-B



Part No: D3391-023

Job Qty: 1 ea

Part Name: Mid Tube Assembly



Part Weight: 0 lbs

Status: Scheduled

Priority: Medium

Job Created: 11/22/17

Job Tracking No:

Due Date: 12/8/17

Created By: Marie Lajeunesse

Type: Stock

Description:

Customer: Abu Dhabi Aviation (CABUD01)

PO Box 2723, Abu Dhabi International Airport Abu Dhabi, , 2723 United Arab Emirates ph:971 2 575 8000
fx:971 2 575 7775.

Note: DWG REV J SHEET 7 IPP A 05.10.20 New Issue KJ/EC IPP B IPP C 07.03.20 rev F dwg EC IPP D 07.03.28
re-format EC IPP E 07.10.31 ecn 1053P EC IPP Rev:F ECN 1056 07-11-13 DD verified by: EC IPP Rev:G 08-
09-08 new process (ecn 08-510) DD verified by:EC IPP Rev:H 08-09-10 revH as per dwg DD verified by:EC
IPP Rev: I 08-11-13 Removed steps per w/o, QC KJ verified by: ec IPP Rev:J add in seq 140 expire date &b#
sikaflex DD 10.02.17 verified by:EC

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard		Workcenter/Supplier		Sign-off
					Setup hrs	Run Hrs	Workcenter / Supplier	Lead Time	
90	Start up Operation	1 Ea		12/7/17	0.00	0.00	Start Up Skidtubes		
100	Skidtubes	1 pcs		12/7/17	0.88	2.11	Skidtubes		
110	QC	1 pcs		12/7/17	0.00	0.00	QC5		
120	HandFinish	1 pcs		12/7/17	0.00	0.38	HandFinish1		
130	QC	1 pcs		12/7/17	0.00	0.00	QC7		
140	Skidtubes	1 pcs		12/7/17	0.00	2.11	Skidtubes		
150	QC	1 pcs		12/7/17	0.00	0.00	QC5		
160	Skidtubes	1 pcs		12/7/17	0.00	2.11	Skidtubes		
170	QC	1 pcs		12/7/17	0.00	0.00	QC10		
180	QC	1 pcs		12/7/17	0.00	0.00	QC5		
185	HandFinish	1 pcs		12/7/17	0.00	0.38	HandFinish2		
191	SprayPaint	1 pcs		12/7/17	0.00	0.91	Spray Paint		
200	QC	1 pcs		12/7/17	0.00	0.00	QC14		
230	HandFinish	1 pcs		12/8/17	0.00	0.38	HandFinish4		
240	QC	1 pcs		12/8/17	0.00	0.00	QC5		
250	Packaging	1 pcs		12/8/17	0.00	0.00	Packaging3		
260	QC21-SA	1 Ea		12/8/17	0.00	0.00	QC21		

Part Op 100 - 1-Cut tube to finish length as per Dwg D3391 2-Drill pilot holes using DT8796 (Do not drill "B" holes) and drill only 1
Descriptions: fwd saddle hole on one side only as per Dwg D3391 3-Open aft saddles and GHW holes to Ø0.4375" except for fwd saddle
holes 4-Remove .030" from Fwd indexing Ridge as per Dwg D3391 5-Remove indexing ridge on Fwd & Aft end of
skidtube as per Dwg D3391 6-Deburr, scibe batch # on aft end. 7- Locate D3391-021 in D3391-023 at 9.00" (see view
F-F) 8- Transfer drill one fwd saddle hole only to .188" dia, transfer drill all remaining fwd saddle holes using DT 8149
locating from previously drill .188" dia hole, using t-pins and clicos to ensure perfect allingment, open up previously tranfer
drilled pilot holes in D3391-023/-021 using drill press. ON FIRST SIDE ONLY drill out 2nd and forth fwd saddles holes to
0.500" as per ON 2ND SIDE ONLY ream out 2nd and forth saddle hole to 0.499". D3391-021
BATCH: 5017205 9- Drill #30 pilot holes using wearplate Jig DT8217 Identify Ø0.375" holes with paint marker,
DO NOT DRILL HOLES #3-19-20 FROM FWD END OF JIG Locating from two fwd wearplate holes in D3391-023
drill remaining 6 wearplate holes in D3391-021 using DT8937 10- Open wearplate holes of D3391-023 assembly detail
section G-G to Ø0.375" (10 holes) as per Dwg D3391 Open wearplate holes of D3391-023 assembly detail section H-H to

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____

Part No. _____

NCR No. _____

DISPOSITION

Rework ☐
 Scrap ☐
 Use-as-is ☐
 Moved ☐

Skid-tube ☐
 Machining ☐
 Thermoforming ☐
 Large Fab ☐

Cross tube ☐
 Small Fab ☐
 Finishing ☐
 Composite ☐

Water Jet ☐
 Prod. Eng. Coord. ☐
 Rec/Store/Packaging ☐
 Supplier ☐

Engineering ☐
 Quality ☐
 Other ☐

QTY Effective : _____

MRB (QSI042) Approval

Disposition

Completed By

Lead hand / Supervisor
Approval VerificationQC / QA Coordinator
Approval

FAULT CATEGORY

☐ Temperature/Cure
☐ Set-up
☐ BOM/Route
☐ Broken/Damage/Defect
☐ Inspection Incomplete/Unqualified
☐ Contamination
☐ Countersink
☐ Cut Too Short
☐ Instructions Incomplete/Unclear
☐ Drill Holes

☐ Power Loss/Surge
☐ Folio/Program
☐ Grain
☐ Weld
☐ Wrong Stock Pulled
☐ Out of Sequence
☐ Off-set
☐ Mislabelled
☐ Fit/Function
☐ Misaligned/off center

☐ Positioned Wrong
☐ Outside Dimensions
☐ Over/Under tolerance
☐ Part Incorrect
☐ Part Lost/Missing
☐ Part Moved
☐ Drawing
☐ Finish
☐ Misread
☐ Turning Sequence

Dart Aerospace Ltd.

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 CANADA
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 Email: sales@dartaero.com
 www.dartaerospace.com

Mfg Date: 12/14/17
 Job No: 168761 - B

D3391 - 023

Start up Operation

PART NO:
 Revision:
 Operation:
 Change No:

S022561

Mid Tube Assembly

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 Internal
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 SL
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Ø0.297" (20 holes) as per Dwg D3391 Deburr and blow out all chips from inside tube, scribe **AP**
140 - 1-Open float bag holes as per dwg 2-C'sink float bag holes as per dwg 3- Prepare tube for welding 4-Bond web in place as per Dwg D3391 & QSI 015. Adhere for 12 hours) A/R Sikaflex exp 2018-04-21 batch#: 138654
 NOTE:ENSURE WEB IS INSERTED IN AFT END OF TUBE
160 - 1-Weld crossbolt spacer as per dwg D3391 & QSI 004 2-grind weld flush **A/R m/88673**
185 - Re-alodine
191 - PRIME AS PER DWG AND QSI005 4.2.1.3.3 PRIMER BATCH: _____ PAINT AS PER DWG AND QSI005 4.2.2.4 PAINT: _____
230 - 1-Install Inserts as per Dwg

Job Allocations

Operation	Component Part	Required	Inventory	Allocated	Std Qty
90-Start up Operation	D2500-1-100 163253	1	92	0	0
140-Skidtubes	D3389-1 5018928	1	8	0	0
160-Skidtubes	D3681-1 5019147	5	111	0	0
230-HandFinish FATISSA-2	ALS4-1032-130 500727	20	12,098	0	0
	D3591-1 5019103	2	85	0	0

Part Specifications

Specifications could not be found.

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DQA: _____ Date: _____

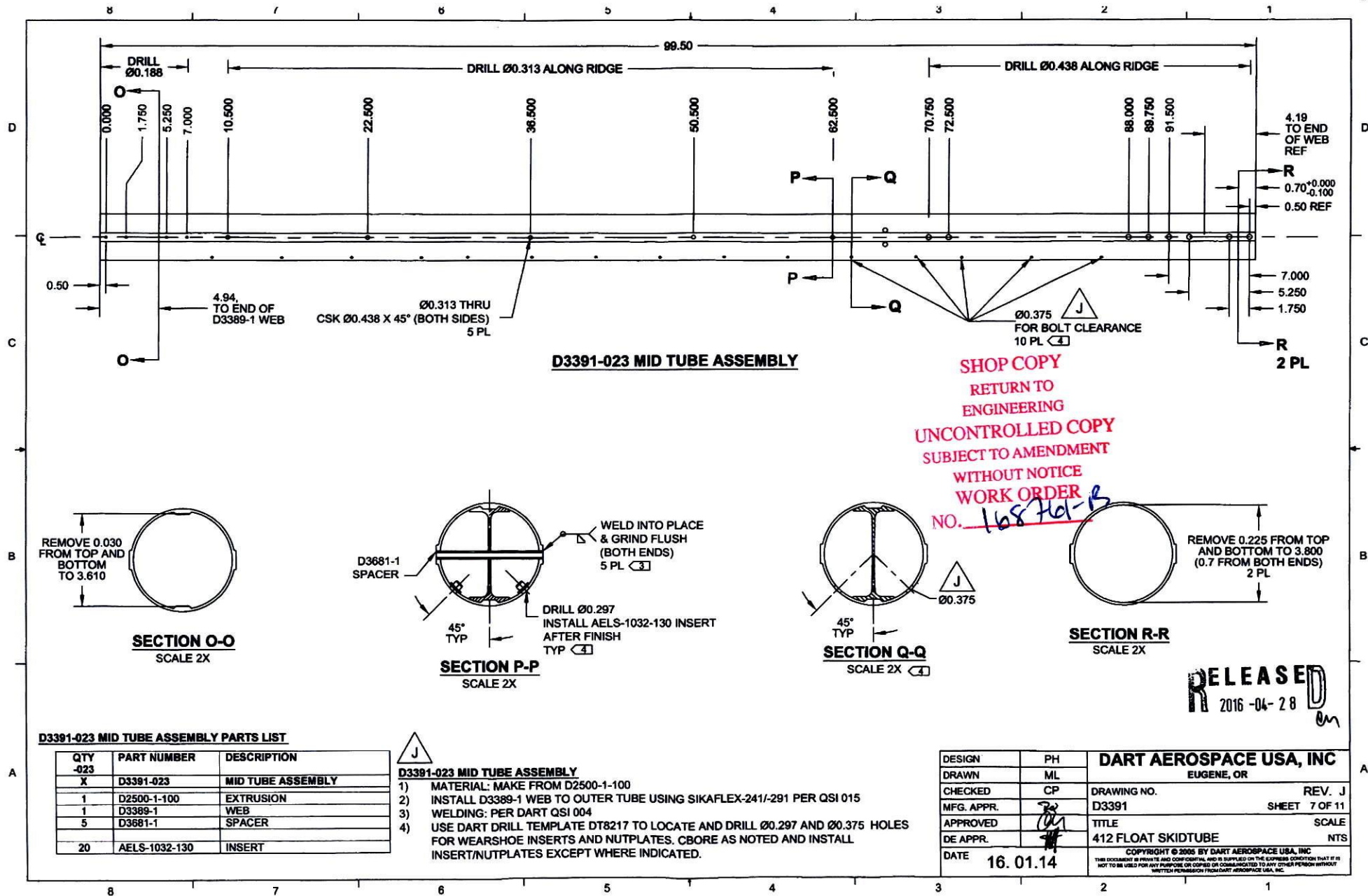


WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____	DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐	AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐			
Date : _____	Step #: _____	QTY Effective : _____		MRB (QSI042) Approval	
Description Work Order Deviation		Disposition		Completed By	
				Lead hand / Supervisor Approval Verification	
				QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY			
Environment ☐ Design ☐ Doc/Data ☐ Equip/Tooling ☐ Handling/Pre ☐ Material ☐ Internal Transport ☐ Tribal Knowledge ☐ LOA ☐ Substation ☐ Past Expiry Date ☐ Misidentified ☐ No Re-verification ☐ Operator ☐ Offset/Setup ☐ Supplier ☐ Training ☐ Use for Testing ☐ Poor Information ☐ Rushing ☐ Product Improvement ☐ Process Improvement ☐ Manufacturing Process ☐ Past Due ☐	Pressure/Forced ☐ Bending ☐ Centre Not Concentric ☐ Cracks ☐ Crimp/Kink/Ripple/Wave ☐ Cuffs ☐ Crushing ☐ Heat Treat ☐ Wave/Twist in Tube ☐ Marks/Chatter ☐ Temperature/Cure ☐ Set-up ☐ BOM/Route ☐ Broken/Damage/Defect ☐ Inspection Incomplete/Unqualified ☐ Contamination ☐ Countersink ☐ Cut Too Short ☐ Instructions Incomplete/Unclear ☐ Drill Holes ☐	Power Loss/Surge ☐ Folio/Program ☐ Grain ☐ Weld ☐ Wrong Stock Pulled ☐ Out of Sequence ☐ Off-set ☐ Misabeled ☐ Fit/Function ☐ Misaligned/off center ☐ Positioned Wrong ☐ Outside Dimensions ☐ Over/Under tolerance ☐ Part Incorrect ☐ Part Lost/Missing ☐ Part Moved ☐ Drawing ☐ Finish ☐ Misread ☐ Turning Sequence ☐			
OTHER : _____					





Dart Hawkesbury
1270 Aberdeen St Hawkesbury, ON K6A 1K7 Canada
Tel (613) 632-5200

Inventory

Operation Number	Operation	Serial Number	Job	Quantity	Weight	Original Serial Number	Location	Container	Status	Added	Special Comments	Label	Supplier	Change No
Part Number: ALS4-1032-225 Revision: Rivnut														
100	Receive Ea	S029872	168761-B	20 Ea	0	M135998	FP001		Stock	1/8/2018	Issue Container			
Operation Totals:		1		20	0									
Part Totals:		1		20	0									
Part Number: D3391-023 Revision: Mid Tube Assembly														
260	QC21-SA	S022561	168761-B	1 Ea	0	S022561	PKG	Bin	Stock	12/14/2017	Issue Container			
Operation Totals:		1		1	0									
Part Totals:		1		1	0									
Totals:		2		21	0									

Plex 1/8/2018 3:54 PM Dart.Boucher.Sylvie

DQA: _____ Date: _____



WORK ORDER NON-CONFORMANCE / UPDATE

QA Closed: _____ Date: _____

Work Order update only ☐

Work Order: _____ Part No. _____ NCR No. _____		DISPOSITION Rework ☐ Scrap ☐ Use-as-is ☐ Suspected Unapproved ☐		AGAINST DEPARTMENT/PROCESS Skid-tube ☐ Machining ☐ Thermoforming ☐ Large Fab ☐ Cross tube ☐ Small Fab ☐ Finishing ☐ Composite ☐ Water Jet ☐ Prod. Eng. Coord. ☐ Rec/Store/Packaging ☐ Supplier ☐ Engineering ☐ Quality ☐ Other ☐					
Date :		Step #:		QTY Effective :			MRB (QSI042) Approval		
Description Work Order Deviation				Disposition				Completed By	
								Lead hand / Supervisor Approval Verification	
								QC / QA Coordinator Approval	
Root Cause		FAULT CATEGORY							
Environment ☐	No Re-verification ☐	Pressure/Forced ☐	Temperature/Cure ☐	Power Loss/Surge ☐	Positioned Wrong ☐				
Design ☐	Operator ☐	Bending ☐	Set-up ☐	Folio/Program ☐	Outside Dimensions ☐				
Doc/Data ☐	Offset/Setup ☐	Centre Not Concentric ☐	BOM/Route ☐	Grain ☐	Over/Under tolerance ☐				
Equip/Tooling ☐	Supplier ☐	Cracks ☐	Broken/Damage/Defect ☐	Weld ☐	Part Incorrect ☐				
Handling/Pre ☐	Training ☐	Crimp/Kink/Ripple/Wave ☐	Inspection Incomplete/Unqualified ☐	Wrong Stock Pulled ☐	Part Lost/Missing ☐				
Material ☐	Use for Testing ☐	Cuffs ☐	Contamination ☐	Out of Sequence ☐	Part Moved ☐				
Internal Transport ☐	Poor Information ☐	Crushing ☐	Countersink ☐	Off-set ☐	Drawing ☐				
Tribal Knowledge ☐	Rushing ☐	Heat Treat ☐	Cut Too Short ☐	Mislabeled ☐	Finish ☐				
LOA ☐	Product Improvement ☐	Wave/Twist in Tube ☐	Instructions Incomplete/Unclear ☐	Fit/Function ☐	Misread ☐				
Substation ☐	Process Improvement ☐	Marks/Chatter ☐	Drill Holes ☐	Misaligned/off center ☐	Turning Sequence ☐				
Past Expiry Date ☐	Manufacturing Process ☐	OTHER :							
Misidentified ☐	Past Due ☐								

Operation Number	Operation	Serial Number	Job	Quantity	Weight	Original Serial Number	Location	Container	Status	Added	Special Comments	Label	Supplier	Change No
Part Number: ALS4-1032-225 Revision: Rivnut														
100	Receive Ea	S029872	168761-B	20 Ea	0	M135998	FP001		Stock	1/8/2018	Issue Container			
Operation Totals:		1		20	0									
Part Totals:		1		20	0									
Part Number: D3391-023 Revision: Mid Tube Assembly														
260	QC21-SA	S022561	168761-B	1 Ea	0	S022561	PKG	Bin	Stock	12/14/2017	Issue Container			
Operation Totals:		1		1	0									
Part Totals:		1		1	0									
Totals:		2		21	0									